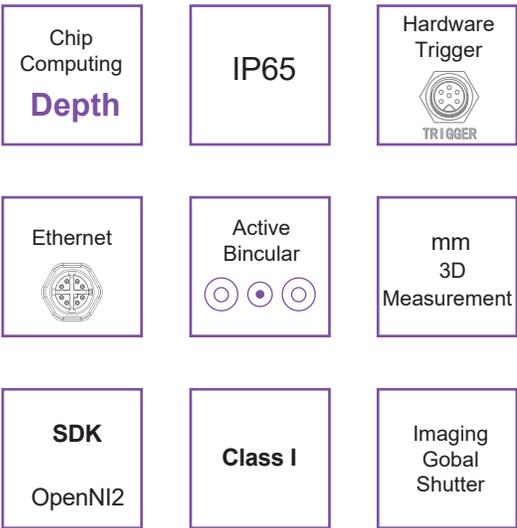
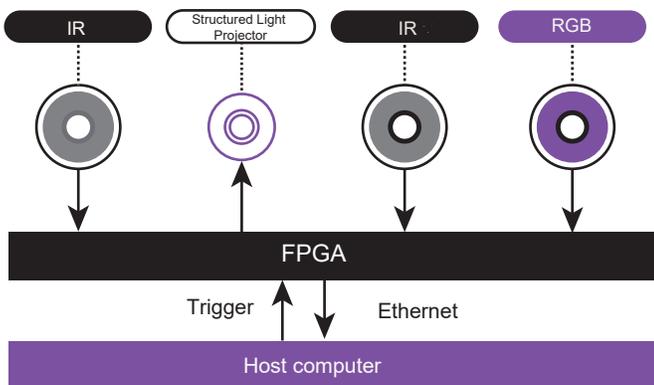


# PERCIPIO 3D CAMERA

## FM 851



## Principle



## Overview

Based on proprietary and patented active stereo technologies, Percipio offers high performance and cost effective 3D camera products for industrial applications. The 3D camera hardware is designed for industrial usages, its high quality standard meets hard conditions like 7x24 working loading and touch environment.

Percipio provides easy-to-use SDK for developers, we also support 3rd part development platforms like OpenNI, Halcon etc.. Many thousands developers from more than 500 commercial customers are developing competitive 3D machine vision products based on Percipio 3D camera and SDKs. The installation base is more than 20K units by far and the growth rate is rapidly increasing.



## Advantages

### Active Stereo

Percipio 3D camera includes dual IR camera+ structured-light projector and a RGD camera. This gives accuracy/precision and performance advantages over traditional stereo or traditional structured light methodolgies.

The pre calibrated products reduces customer installation cost, the robust design also minimizes the maintenance cost during many years life time.

### IP65

FM851 is small but robust, it meets IEC 60529 IP65 standard. (\*laboratory test result, certificate is subject to request.)

### Trigger Mode

FM851 provides hardware trigger interface, it supports single frame model and it also makes multiple FM851 3D cameras fusion very easy.

### Structured-Light Projector

Percipio's proprietary structured-light projector uses IR laser, the well designed pattern offers best-in-class depth quality.

### RGB

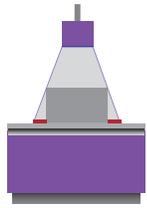
High quality RGB data with ISP, FM851 provides RGD-Depth synchronization and alignment.

### Embedded Vision Processor

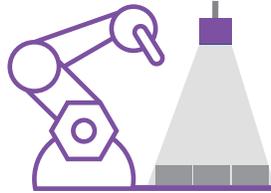
All image processing is done by local vision processor within FPGA, no customer host processing required.

# Applications

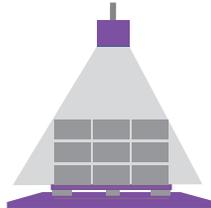
FM851 is widely used in many industrial applications.



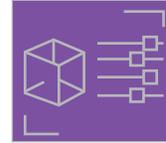
Dimension



Position



Destacking / Palletizing



3D Content Generation

## Features

### Size

- + L x H x W  
141 x 31.9 x 96
- + Weight: 650g

### Parameter

- + Baseline  
79 mm
- + Range  
0.7 m - 6.0 m
- + FOV(H/V)  
56° / 46°
- + Accuracy  
0.2% - 2%  
z: 2mm@1m  
x, y: 4mm@1m

### Output Data

- + Point Cloud, Depth Map, IR & RGB

### Software

- + OS:  
Linux/Windows/Android/ROS
- + Software Development Platform:  
PercipioSDK / OpenNI 2 / Halcon
- + API:  
C / C++

### Performance

- + Depth  
1280 x 960 @ 26 fps  
640 x 480 @ 26fps
- + RGB  
1280 x 960 @ 26fps  
640 x 480 @ 26 fps  
RGB-D synchronization  
RGB-D alignment

### Power

- + Power Supply: 48V POE / 24V POWER
- + Power Consumption  
Idle Mode : 2.9W  
Working Mode : 5.2W  
Trigger Mode : 4.0W

### Interface

- + GPIO: Trigger and Power Line
- + Ethernet: X-code M12

### Physics

- + Temperature  
Storage: -10°C-55°C  
Operation: 0°C-45°C

### Laser Safety

- + Class I

## Others

Wechat: percipio

